## **CLAIMS**

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I çlaim:

A high speed video mixer circuit, comprising;

a reference circuit generating a bias

5 voltage; and

a differential pair receiving as input signals a video signal and said bias voltage, said differential pair providing a first output video signal corresponding to said video signal, and a second output signal amplifying said video signal.

A high speed video mixer circuit as in Claim
 further comprising:

a second reference dircuit for generating a second bias voltage; and

a bias circuit biasing said first output video signal about said second bias voltage.

- 3. A high speed video mixer circuit as in Claim 1, further comprising a voltage clamp, said voltage clamp preventing an input transistor of said differential pair from going into saturation.
- 4. A high speed video mixer circuit as in Claim
  3, wherein said voltage clamp comprises a bipolar
  transistor having a base terminal receiving said bias
  voltage and having an emitter terminal coupled to a
  terminal of said input transistor, such that said
  terminal of said input transistor is clamped at
  substantially one base-emitter voltage drop above said
  bias voltage.